

AMENDEMENTS TO THE CLAIMS

1. (Currently Amended) A method of fabricating an X-ray detecting device, comprising the steps of:

providing a thin film transistor and a lower electrode of a storage capacitor on a substrate;

providing an inorganic insulating film over the thin film transistor and over the lower electrode;

providing an organic insulating film over the inorganic insulating film; and

simultaneously dry etching the organic insulating film and the inorganic insulating film using a mixed ratio gas that etches the organic insulating film faster than the inorganic insulating film.

2. (Original) The method according to claim 1, wherein an etching rate of the organic insulating film is greater than that of the inorganic insulating film.

3. (Original) The method according to claim 1, wherein the mixed ratio gas contains SF₆, O₂, O₂+ Cl₂ and CF₄.

4. (Original) The method according to claim 3, wherein a component ratio of SF₆ to O₂ is about 1:3.

5. (Original) The method according to claim 1, further comprising the steps of:

patterning the inorganic insulating film and the organic insulating film to provide a storage insulating film and a first protective film;

forming a transparent electrode on the first protective film;

forming a second protective film on the first protective film; and

providing a pixel electrode on the second protective film.

6. (Original) The method according to claim 1, wherein said step of providing the thin film transistor includes:

forming a gate electrode on the substrate;

forming a gate insulating film over the substrate and over the gate electrode;

forming a semiconductor layer on the gate insulating film; and

forming source and drain electrodes on the semiconductor layer.

7. (Original) The method according to claim 1, wherein the inorganic insulating film is made from any one of silicon nitride (SiNx) and silicon oxide (SiOx).

8. (Original) The method according to claim 1, wherein the organic insulating film is made from any one of an acrylic organic compound, Teflon, BCB (benzocyclobutene), Cytop and PFCB (perfluorocyclobutane).

9. (Currently Amended) A method of fabricating a semiconductor assembly, comprising the steps of:

providing a thin film transistor and a lower electrode of a storage capacitor on a substrate;

providing a first insulating film over the thin film transistor and over the lower electrode;

providing a second insulating film over the first insulating film; and
simultaneously dry etching the first insulating film and the second insulating film using a mixed ratio gas that etches the second insulating film faster than the first insulating film.

10. The method according to claim 9, wherein the mixed ratio gas contains SF₆, O₂, O₂+Cl₂ and CF₄.

11. (Original) The method according to claim 10, wherein a component ratio of SF₆ to O₂ is about 1:3.

12. (Original) The method according to claim 9, further comprising the steps of:
patterning the first insulating film and the second insulating film to provide a storage insulating film and a first protective film;
forming a transparent electrode on the first protective film;
forming a second protective film on the first protective film; and
providing a pixel electrode on the second protective film.

13. (Original) The method according to claim 1, wherein said step of providing the thin film transistor includes:

forming a gate electrode on the substrate;
forming a gate insulating film over the substrate and over the gate electrode;
forming a semiconductor layer on the gate insulating film; and
forming source and drain electrodes on the semiconductor layer.

14. (Original) The method according to claim 9, wherein the first insulating film is made from any one of silicon nitride (SiNx) and silicon oxide (SiOx).

15. (Original) The method according to claim 9, wherein the second insulating film is made from any one of an acrylic organic compound, Teflon, BCB (benzocyclobutene), Cytop and PFCB (perfluorocyclobutane).

16-20. (Withdrawn)